

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1-14. (Cancelled)
15. (Original): An air recovery battery comprising:
- (a) a container having an air access port;
 - (b) a cathode comprising a cathode paste containing at least about 60% by weight MnO₂, wherein the MnO₂ consists essentially of electrochemically synthesized MnO₂;
 - (c) an anode comprising zinc; and
 - (d) a separator between the cathode and the anode.
16. (Original): The battery of claim 15, wherein the cathode paste contains at least about 70% by weight MnO₂.
17. (Original): The battery of claim 16, wherein the cathode paste contains at least about 80% by weight MnO₂.
18. (Original): The battery of claim 17, wherein the cathode paste contains at least about 85% by weight MnO₂.
19. (Original): The battery of claim 18, wherein the cathode paste contains at least about 90% by weight MnO₂.

20. (Original): The battery of claim 15, wherein the cathode paste contains at least about 2% by weight of a hydrophobic polymer.

21. (Original): The battery of claim 20, wherein the cathode paste contains at least about 3% by weight of a hydrophobic polymer.

22. (Original): The battery of claim 21, wherein the cathode paste contains at least about 4% by weight of a hydrophobic polymer.

23. (Original): The battery of claim 22, wherein the cathode paste contains at least about 5% by weight of a hydrophobic polymer.

24. (Original): The battery of claim 23, wherein the cathode paste contains at least about 6% by weight of a hydrophobic polymer.

25. (Original): The battery of claim 24, wherein the cathode paste contains at least about 7% by weight of a hydrophobic polymer.

26. (Original): The battery of claim 15, wherein the cathode further comprises a current collector.

27. (Original): The battery of claim 15, wherein the battery is a cylindrical battery.

28. (Original): The battery of claim 27, wherein the battery is a AAA battery.

29. (Original): The battery of claim 27, wherein the battery is a AA battery.

30. (Original): The battery of claim 27, wherein the battery is a C battery.

31. (Original): The battery of claim 27, wherein the battery is a D battery.
32. (Original): The battery of claim 15, wherein the battery is a prismatic battery.
33. (Original): The battery of claim 15, wherein the battery is a racetrack battery.
34. (Original): A method for making an air recovery battery, the method comprising:
 - (a) combining MnO_2 , carbon, and a binder to form a cathode paste, wherein the MnO_2 consists essentially of electrochemically synthesized MnO_2 , and wherein the cathode paste contains at least about 60% by weight MnO_2 ;
 - (b) spreading the cathode paste on a current collector to form a cathode;
 - (c) inserting the cathode into a container, wherein the container includes an air access port;
 - (d) inserting anode material into the container, wherein the anode material comprises zinc; and
 - (e) sealing the container.
35. (Original): The method of claim 34, wherein the cathode paste contains at least about 70% by weight MnO_2 .
36. (Original): The method of claim 35, wherein the cathode paste contains at least about 80% by weight MnO_2 .
37. (Original): The method of claim 36, wherein the cathode paste contains at least about 85% by weight MnO_2 .

38. (Original): The method of claim 37, wherein the cathode paste contains at least about 90% by weight MnO_2 .

39. (Original): A method for making a rechargeable cathode, the method comprising:
(a) combining a catalyst, carbon particles, and a solvent to form a mixture;
(b) combining the mixture with a hydrophobic polymer at a temperature below about 10°C to form a paste;
(c) stirring the paste at a temperature below about 10°C ; and
(d) warming the paste to at least about 20°C and mixing the paste at this temperature.

40. (Original): The method of claim 39, wherein step (c) comprises stirring the paste under vacuum.

41. (Original): The method of claim 39, wherein step (d) comprises stirring the paste under vacuum.

42. (Original): The method of claim 39, wherein step (c) comprises stirring the paste at a speed of about 15 rpm.

43. (Original): The method of claim 39, wherein step (d) comprises stirring the paste at a speed of about 15 rpm.